

### **REMARKS**

Claims 1-18 are pending in this application.

Claims 1, 9 and 14 have been amended. It is respectfully submitted that no new matter has been added.

### **REJECTIONS UNDER 35 U.S.C. § 102:**

Claims 1, 9 and 14 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Pierrat (US5,935,734).

Amended claims 1, 9 and 14 recite, *inter alia*, “at least one through hole penetrating a predetermined region of each of the light-shielding patterns to expose the transparent substrate, wherein the at least one through hole has a size smaller than a distance between the light-shielding patterns”. The present application discloses that “Each of the through holes 250 has a size smaller than a critical dimension so that photoresist patterns corresponding to the through holes 250 can be prevented from being formed. According to the present embodiment of the invention, there are provided through holes 250 penetrating through predetermined regions of the light-shielding patterns 220 and exposing the transparent substrate 100 so that the duty ratio in the longitudinal axis L is reduced and the image sharpness is improved.” See paragraphs [0041] and [0046] of the present application.

Applicants respectfully submit that Pierrat does not disclose that at least one through hole has a size smaller than a distance between the light-shielding patterns. For example, Pierrat does not disclose or suggest that the openings (15) are smaller than a distance between the light-shielding patterns.

Accordingly, for at least the above reasons, Pierrat does not anticipate claims 1, 9, and 14.

Accordingly, Applicants respectfully request that the Examiner withdraw the rejections under 35 U.S.C § 102(b).

Claims 1, 9 and 14 stand rejected under 35 U.S.C. 102 (e) as being anticipated by Kim (US7,022,438).

Applicants respectfully submit that Kim does not disclose or suggest “at least one through hole penetrating a predetermined region of each of the light-shielding patterns to expose the transparent substrate, wherein the at least one through hole has a size smaller than a distance between the light-shielding patterns”, as essentially recited in amended claims 1, 9 and 14.

Kim is directed to photomasks that are used to form a fine contact hole array. *See* Abstract of Kim. Kim describes a contact hole (100) and an opening (205). However, neither the contact hole nor the opening (205) has a size smaller than a distance between the light-shielding patterns.

Accordingly, for at least the above reasons, Kim does not anticipate claims 1, 9, and 14.

Accordingly, Applicants respectfully request that the Examiner withdraw the rejections under 35 U.S.C § 102(e).

**REJECTIONS UNDER 35 U.S.C. § 103:**

Claims 1-18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Pierrat (US5,935,734) or Kim in view of Kawata et al. (US6,830,852).

Applicants respectfully submit that neither Pierrat, Kim, Kawata, nor any combinations thereof discloses or suggests “at least one through hole penetrating a predetermined region of each of the light-shielding patterns to expose the transparent substrate, wherein the at least one through hole has a size smaller than a distance between the light-shielding patterns”, as essentially recited in amended claims 1, 9 and 14.

As previously discussed, neither Pierrat nor Kim discloses or suggests the above claimed features. Kawata does not cure the deficiency in this regard. Kawata is directed to a stencil reticle for use in charged-particle-beam microlithography. For example, Fig. 4 of Kawata describes a pattern element 12 having a blocking region and non-blocking region. However, the non-blocking region is not smaller than a distance between the light-shielding patterns.

Since claims 2-8, 10-13 and 15-18 depend from claims 1, 9 and 14, respectively,<sup>11</sup> these dependent claims are also patentable for the same reasons given above for claims 1, 9 and 14.

Therefore, Applicants respectfully request that Examiner withdraw the rejection of claims 1-18 under 35 U.S.C. § 103(a) and that claims 1-18 are in condition for allowance.

Applicants note that the Examiner combines Kim and Kawata to reject claims 1-18 under 35 U.S.C. 103(a).

**Kim is not applicable as a §103 reference against the presently claimed invention.**

It is respectfully submitted that the above obviousness rejections based upon Kim and Kawata combination are legally deficient as a matter of law under 35 U.S.C. 103(c),

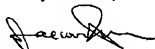
since the Kim reference is not available as prior art against the claimed invention. More specifically, under amended provision 35 U.S.C. 103(c), commonly assigned applications that are available as prior art only under 35 U.S.C. 102(e), (f), or (g) are no longer applicable as prior art to the claimed invention in an obviousness rejection. As set forth in MPEP 706.02(l)(1), for applications filed on or after November 29, 1999, subject matter that was 35 U.S.C. 102(e) prior art under former 35 U.S.C. 103 is now disqualified as prior art against the claimed invention if that subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. Here, the provisions of 35 U.S.C. 103(c) are applicable to disqualify the Kim reference as prior art against the claimed inventions for the following reasons.

First, Kim is available as prior art to the present application only under 35 U.S.C. 102(e) since Kim was published January 29, 2004, which is after the effective filing date of applicant's current application, July 4, 2003. Secondly, the filing date of the current application is April 19, 2004, which is after the effective date of November 29, 1999. Thirdly, for purposes of common ownership, the current application and the Kim patent publication were, at the time of the invention of the current application was made, owned by the same entity, Samsung Electronics Corporation.

Therefore, the amended provision 103(c) is applicable and Examiner cannot rely on Kim to support the claim rejection under 35 U.S.C. 103(a). Accordingly, the obviousness rejections under 35 U.S.C. 103(a) based upon Kim and Kawata combination are legally deficient on their face and, consequently, must be withdrawn.

An early and favorable reconsideration is earnestly solicited. If the Examiner has any further questions or comments, the Examiner may telephone Applicants' Attorney to reach a prompt disposition of this application.

Respectfully submitted,



Frank Chau  
Reg. No. 34,136  
Jaewoo Park  
Ltd. Rec. No. L0302  
Attorneys for Applicant(s)

F. Chau & Associates, LLC  
130 Woodbury Road  
Woodbury, New York 11797  
TEL: (516) 692-8888  
FAX: (516) 692-8889